

## STATE CORPORATION COMMISSION

DOCUMENT CONTROL

AT RICHMOND, MAY 1, 2008

COMMONWEALTH OF VIRGINIA, ex rel.

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STATE CORPORATION COMMISSION

CASE NO. PUE-2008-00008

Ex Parte: In the matter of amending regulations  
governing net energy metering

ORDER ESTABLISHING PROCEEDING

The Regulations Governing Net Energy Metering, 20 VAC 5-315-10 et seq. ("Net Energy Metering Rules"), adopted by the State Corporation Commission ("Commission") pursuant to § 56-594 of the Virginia Electric Utility Restructuring Act, Chapter 23 (§ 56-576 et seq.) of Title 56 of the Code of Virginia ("Restructuring Act"), establish the requirements for participation by an eligible customer-generator in net energy metering in the Commonwealth. The Net Energy Metering Rules include conditions for interconnection and metering, billing, and contract requirements between net metering customers, electric distribution companies, and energy service providers.<sup>1</sup>

Chapters 877, 888, and 933 of the 2007 Acts of Assembly amended § 56-594 of the Code<sup>2</sup> to: (1) increase the allowable total aggregate generation capacity of net metering customers in each utility's Virginia service territory from 0.1% to 1% of the utility's adjusted Virginia peak-load forecast in the previous year; and (2) require each utility, upon written

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<sup>1</sup> On September 25, 2006, the Commission amended the Commission's Net Energy Metering Rules to: expand the definition of eligible customer-generator; expand the types of permissible fuels for the subject electrical generating facility; and require that the generator located on the customer's premises must also be connected to the customer's wiring on the customer's side of its interconnection with the distributor. These amendments reflect the statutory changes enacted by Chapter 470 of the 2006 Acts of Assembly, which amended § 56-594 of the Restructuring Act (Case No. PUE-2006-00073, Order Adopting Final Regulations).

<sup>2</sup> The 2007 amendments to § 56-594 divided former subsection D into present subsections D and E where the language of the 2007 amendments are found.

request of a net metering customer (*i.e.*, eligible customer-generator), to enter into a contract to purchase the generation that exceeds the customer's own usage for the 12-month net metering period at a rate approved by the Commission, unless the parties agree to a higher rate.<sup>3</sup> The current Net Energy Metering Rules thus must be revised to reflect the increase of allowable total aggregate generation capacity of net metering customers and to establish the framework for eligible customer-generators to contract with their electric distribution company for the sale of generation exceeding their usage.

In addition to changes to reflect statutory amendments described above, a technical correction to 20 VAC 5-315-50 is also needed.

NOW THE COMMISSION, upon consideration of the matter, is of the opinion and finds that a proceeding should be established to amend the Net Energy Metering Rules to reflect the statutory increase of allowable total aggregate generation capacity of net metering customers and to establish the framework for eligible customer-generators to contract with their electric distribution company for sale of generation exceeding their usage and to make a technical correction to 20 VAC 5-315-50. To initiate this proceeding, the Commission Staff has prepared proposed rules ("Proposed Rules") which are appended to this Order. We will direct that notice of the Proposed Rules be given to the public and that interested persons be provided an opportunity to file written comments on, propose modifications or supplements to, or request a hearing on the Proposed Rules. We will further direct that each Virginia electric distribution company within the meaning of 20 VAC 5-315-20 serve a copy of this Order upon each of their respective net metering customers and file a certificate of service. Individuals should be specific

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<sup>3</sup> The net metering contract is available to eligible customer-generators on a first-come, first-served basis in each electric distribution company's Virginia service area until the rated generating capacity owned and operated by eligible customer-generators in the state reaches one percent of each electric distribution company's adjusted Virginia peak-load forecast for the previous year (§ 56-594 E of the Code).

in their comments, proposals, or supplements to the Proposed Rules and address only those issues pertaining to the amendment of § 56-594 of the Code of Virginia pursuant to Chapters 877, 888, and 933 of the 2007 Acts of Assembly and the proposed technical correction to 20 VAC 5-315-50. Issues outside the scope of implementing these amendments and the technical correction will not be open for consideration.

Accordingly, IT IS ORDERED THAT:

- (1) This case is docketed and assigned Case No. PUE-2008-00008.
- (2) The Commission's Division of Information Resources shall forward a copy of this Order Establishing Proceeding to the Registrar of Regulations for publication in the Virginia Register of Regulations.
- (3) On or before May 30, 2008, the Commission's Division of Information Resources shall publish the following notice as classified advertising in newspapers of general circulation throughout the Commonwealth of Virginia:

NOTICE TO THE PUBLIC OF A PROCEEDING  
TO AMEND REGULATIONS FOR NET ENERGY METERING  
PURSUANT TO § 56-594 OF THE CODE OF VIRGINIA  
CASE NO. PUE-2008-00008

The Regulations Governing Net Energy Metering, 20 VAC 5-315-10 *et seq.* ("Net Energy Metering Rules"), adopted by the State Corporation Commission ("Commission") pursuant to § 56-594 of the Virginia Electric Utility Restructuring Act, Chapter 23 (§ 56-576 *et seq.*) of Title 56 of the Code of Virginia ("Restructuring Act"), establish the requirements for participation by an eligible customer-generator in net energy metering in the Commonwealth. The Net Energy Metering Rules include conditions for interconnection and metering, billing, and contract requirements between net metering customers, electric distribution companies, and energy service providers.

Chapters 877, 888, and 933 of the 2007 Acts of Assembly amended § 56-594 of the Code of Virginia to: (1) increase the

allowable total aggregate generation capacity of net metering customers in each utility's Virginia service territory from 0.1% to 1% of the utility's adjusted Virginia peak-load forecast in the previous year; and (2) require each utility, upon written request of a net metering customer (*i.e.*, eligible customer-generator), to enter into a contract to purchase the generation that exceeds the customer's own usage for the 12-month net metering period at a rate approved by the Commission, unless the parties agree to a higher rate. In addition to these statutory amendments, the Commission Staff is proposing a technical correction to 20 VAC 5-315-50 of the Net Energy Metering Rules.

The Commission has established a proceeding and published Staff's proposed amendments to the Net Energy Metering Rules to reflect the changes required by the revision of § 56-594 of the Code of Virginia ("Proposed Rules") and the technical correction to 20 VAC 5-315-50 of the Net Metering Rules. Interested persons are encouraged to obtain a copy of the Commission Order and the proposed amendments in this proceeding. Copies are available for public inspection at the Commission's Document Control Center, Tyler Building, First Floor, 1300 East Main Street, Richmond, Virginia 23219, Monday through Friday, 8:15 a.m. to 5:00 p.m., or may be downloaded from the Commission's website: <http://www.scc.virginia.gov/case>.

On or before June 26, 2008, any interested person may file an original and fifteen (15) copies of any written comments on or propose modifications or supplements to the Proposed Rules with the Clerk of the Commission at the address set forth below. Interested persons desiring to submit comments electronically may do so by following the instructions available at the Commission's website. Individuals should be specific in their comments, proposals, or supplements to the Proposed Rules and address only those issues pertaining to the amendment of Va. Code § 56-594 pursuant to Chapter 877, 888, and 933 of the 2007 Acts of Assembly and the technical correction proposed. Issues outside the scope of implementing this amendment and technical correction will not be open for consideration.

On or before June 26, 2008, any interested person may file an original and fifteen (15) copies of any requests for hearing with the Clerk of the Commission at the address set forth below. Any request for hearing shall state with specificity why the issues raised in the request for hearing cannot be adequately addressed in written comments. If sufficient request for hearing is not received, the Commission may enter an order based upon the papers filed.

Persons expecting to participate as a respondent in any hearing that may be scheduled shall include with their request for hearing an original and fifteen (15) copies of a notice of participation in accordance with 5 VAC 5-20-80 of the Commission Rules of Practice and Procedure, 5 VAC 5-20-10 *et seq.*

All filings in this proceeding shall be directed to Joel H. Peck, Clerk, State Corporation Commission, c/o Document Control Center, P.O. Box 2118, Richmond, Virginia 23218, and shall refer to Case No. PUE-2008-00008.

#### STATE CORPORATION COMMISSION

(4) On or before May 21, 2008, each Virginia electric distribution company shall serve a copy of this Order upon each of their respective net metering customers and file a certificate of service no later than May 27, 2008, consistent with the findings above.

(5) On or before June 26, 2008, any interested person may comment on, propose modifications or supplements to, or request a hearing on the Proposed Rules by filing an original and fifteen (15) copies of such comments or requests with Joel H. Peck, Clerk, State Corporation Commission, c/o Document Control Center, P.O. Box 2118, Richmond, Virginia 23218. Individuals should be specific in their comments, proposals, or supplements to the Proposed Rules and address only those issues pertaining to the amendment of § 56-594 of the Code of Virginia pursuant to Chapters 877, 888, and 933 of the 2007 Acts of Assembly and the technical correction to 20 VAC 5-315-50. Issues outside the scope of implementing this amendment and technical correction will not be open for consideration. Any request for hearing shall state with specificity why the issues raised in the request for hearing cannot be adequately addressed in written comments. If a sufficient request for hearing is not received, the Commission may consider the matter and enter an order based upon the papers filed herein. Interested parties shall refer in their comments or requests to Case No. PUE-2008-00008. Interested persons desiring to

submit comments electronically may do so by following the instructions available at the Commission's website: <http://www.scc.virginia.gov/case>.

(6) This matter is continued for further orders of the Commission.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to all persons on the official Service List in this matter. The Service List is available from the Clerk of the State Corporation Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, Virginia 23219.

## **STATE CORPORATION COMMISSION**

### **Rules Governing Net Energy Metering**

#### **20VAC5-315-10. Applicability and scope.**

These regulations are promulgated pursuant to the provisions of §56-594 of the Virginia Electric Utility Restructuring Act (§56-576 et seq. of the Code of Virginia). They establish requirements intended to facilitate net energy metering for customers owning and operating, or contracting with persons to own or operate, or both, an electrical generator that uses renewable energy, as defined by §56-576 of the Code of Virginia as its total fuel source. These regulations will standardize the interconnection requirements for such facilities and will govern the metering, billing, payment and contract requirements between net metering customers, electric distribution companies and energy service providers.

#### **20VAC5-315-20. Definitions.**

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Billing period" means, as to a particular customer, the time period between the dates on which the electric distribution company or energy service provider, as the case may be, issues the customer's bills.

"Electric distribution company" means the entity that owns and/or operates the distribution facilities delivering electricity to the net metering customer's premises.

"Energy service provider" means the entity providing electric energy to a net metering customer, either as a tariffed, competitive, or default service pursuant to §56-585 of the Code of Virginia.

"Excess generation" means the amount by which electricity generated by the renewable fuel generator exceeds the electricity consumed by the net metering customer for the net metering period.

"Net metering customer" means a customer owning and operating, or contracting with other persons to own or operate, or both, a renewable fuel generator under a net metering service arrangement.

"Net metering period" means each successive 12-month period beginning with the first meter reading date following the date of final interconnection of the renewable fuel generator with the electric distribution company's facilities.

"Net metering service" means measuring the difference, over the net metering period between electricity supplied to a net metering customer from the electric grid and the electricity generated and fed back to the electric grid by the net metering customer, using a single meter or, as provided in 20VAC5-315-70, additional meters.

"Person" means any individual, corporation, partnership, association, company, business, trust, joint venture, or other private legal entity and the Commonwealth or any municipality.

"Renewable fuel generator" means an electrical generating facility that:

1. Has an alternating current capacity of not more than 10 kilowatts for residential customers and not more than 500 kilowatts for nonresidential customers;
2. Uses renewable energy, as defined by §56-576 of the Code of Virginia, as its total fuel source;
3. The net metering customer owns and operates, or has contracted with other persons to own or operate, or both;



4. Is located on the customer's premises and is connected to the customer's wiring on the customer's side of its interconnection with the distributor;

5. Is interconnected pursuant to a net metering arrangement and operated in parallel with the electric distribution company's facilities; and

6. Is intended primarily to offset all or part of the net metering customer's own electricity requirements.

**20VAC5-315-40. Conditions of interconnection.**

A. A prospective net metering customer may begin operation of his renewable fuel generator on an interconnected basis when:

1. The net metering customer has properly notified both the electric distribution company and energy service provider (in accordance with 20VAC5-315-30) of his intent to interconnect;

2. If required by the electric distribution company's net metering tariff, the net metering customer has installed a lockable, electric distribution company accessible, load breaking manual disconnect switch;

3. A licensed electrician has certified, by signing the commission-approved notification form, that any required manual disconnect switch has been installed properly and that the renewable fuel generator has been installed in accordance with the manufacturer's specifications as well as all applicable provisions of the National Electrical Code;

4. The vendor has certified, by signing the commission-approved notification form, that the renewable fuel generator being installed is in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories in accordance with IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, July 2003;

5. In the case of static inverter-connected renewable fuel generators with an alternating current capacity in excess of 10 kilowatts, the net metering customer has had the inverter settings inspected by the electric distribution company. The inspecting electric distribution company may impose a fee on the net metering customer of no more than \$50 for such inspection;

6. In the case of nonstatic inverter-connected renewable fuel generators, the net metering customer has interconnected according to the electric distribution company's interconnection guidelines and the electric distribution company has inspected all protective equipment settings. The inspecting electric distribution company may impose a fee on the net metering customer of no more than \$50 for such inspection.

7. In the case of renewable fuel generators with an alternating current capacity greater than 25 kilowatts, the following requirements shall be met before interconnection may occur:

a. Electric distribution facilities and customer impact limitations. A renewable fuel generator shall not be permitted to interconnect to distribution facilities if the interconnection would reasonably lead to damage to any of the electric distribution company's facilities or would reasonably lead to voltage regulation or power quality problems at other customer revenue meters due to the incremental effect of the generator on the performance of the electric distribution system, unless the customer reimburses the electric distribution company for its cost to modify any facilities needed to accommodate the interconnection.

b. Secondary, service, and service entrance limitations. The capacity of the renewable fuel generator shall be less than the capacity of the electric distribution company-owned secondary, service, and service entrance cable connected to the point of interconnection, unless the customer reimburses the electric distribution

company for its cost to modify any facilities needed to accommodate the interconnection.

c. Transformer loading limitations. The renewable fuel generator shall not have the ability to overload the electric distribution company transformer, or any transformer winding, beyond manufacturer or nameplate ratings, unless the customer reimburses the electric distribution company for its cost to modify any facilities needed to accommodate the interconnection.

d. Integration with electric distribution company facilities grounding. The grounding scheme of the renewable fuel generator shall comply with IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, July 2003, and shall be consistent with the grounding scheme used by the electric distribution company. If requested by a prospective net metering customer, the electric distribution company shall assist the prospective net metering customer in selecting a grounding scheme that coordinates with its distribution system.

e. Balance limitation. The renewable fuel generator shall not create a voltage imbalance of more than 3.0% at any other customer's revenue meter if the electric distribution company transformer, with the secondary connected to the point of interconnection, is a three-phase transformer, unless the customer reimburses the electric distribution company for its cost to modify any facilities needed to accommodate the interconnection.

B. A prospective net metering customer shall not be allowed to interconnect a renewable fuel generator if doing so will cause the total rated generating alternating current capacity of all interconnected renewable fuel generators within that customer's electric distribution company's Virginia service territory to exceed ~~0.4~~1.0% of that company's Virginia peak-load forecast for the previous year. In any case where a prospective net metering customer has submitted a

notification form required by 20VAC5-315-30 and that customer's interconnection would cause the total rated generating alternating current capacity of all interconnected renewable fuel generators within that electric distribution company's service territory to exceed ~~0.4~~ 1.0% of that company's Virginia peak-load forecast for the previous year, the electric distribution company shall, at the time it becomes aware of the fact, send written notification to such prospective net metering customer and to the commission's Division of Energy Regulation that the interconnection is not allowed. In addition, upon request from any customer, the electric distribution company shall provide to the customer the amount of capacity still available for interconnection pursuant to §56-594 D of the Code of Virginia.

C. Neither the electric distribution company nor the energy service provider shall impose any charges upon a net metering customer for any interconnection requirements specified by this chapter, except as provided under subdivisions A 5 and 6 of this section, and 20VAC5-315-50 as related to off-site metering.

D. The net energy metering customer shall immediately notify the electric distribution company of any changes in the ownership of, operational responsibility for, or contact information for the generator.

**20VAC5-315-50. Metering, billing, payment and tariff considerations.**

Net metered energy shall be measured in accordance with standard metering practices by metering equipment capable of measuring (but not necessarily displaying) power flow in both directions. Each contract or tariff governing the relationship between a net metering customer, electric distribution company or energy service provider shall be identical, with respect to the rate structure, all retail rate components, and monthly charges, to the contract or tariff under which the same customer would be served if such customer was not a net metering customer with the exception that time of use metering is not permitted. Said contract or tariff shall be

applicable to both the electric energy supplied to, and consumed from, the grid by that customer.

In instances where net metering customers' metering equipment is of a type for which meter readings are made off site and where this equipment has, or will be, installed for the convenience of the electric distribution company, the electric distribution company shall provide the necessary additional metering equipment to enable net metering service at no charge to the net metering customer. In instances where a net metering customer has requested, and where the electric distribution company would not have otherwise installed, metering equipment which is intended to be read off site, the electric distribution company may charge the net metering customer its actual cost of installing any additional equipment necessary to implement net metering service.

If electricity generated by the net metering customer and fed back to the electric grid exceeds the electricity supplied to the net metering customer from the grid during a net metering period, the net metering customer shall receive no compensation from the electric distribution company nor the energy service provider unless that net metering customer has entered into a ~~purchase-power~~ purchase agreement contract with the electric distribution company and/or the energy service provider.

If the electric distribution company is also the energy service provider of the net metering customer, the electric distribution company, upon the written request of the net metering customer, shall enter into a power purchase agreement for the excess generation for net metering periods that begin on or after July 1, 2007. For net metering periods beginning during the time period July 1, 2007 through December 31, 2008, the written request of the net metering customer shall be submitted prior to the end of the net metering period. For net metering periods beginning on or after January 1, 2009, the written request of the net metering customer shall be submitted prior to the beginning of the net metering period. The power purchase

agreement shall be consistent with this chapter and obligate the electric distribution company to purchase the excess generation for requested net metering periods at a price equal to the system-wide PJM Interconnection, L.L.C. (PJM) day-ahead annual, simple average LMP (locational marginal price), as published by the PJM Market Monitoring Unit, for the most recent calendar year ending on or before the end of each net metering period, unless the electric distribution company and the net metering customer mutually agree to a higher price or unless, after notice and opportunity for hearing, the Commission establishes a different price or pricing methodology. The electric distribution company shall make full payment annually to the net metering customer within 30 days following the latter of the end of the net metering period or the PJM Market Monitoring Unit's publication of the applicable calendar-year system-wide PJM day-ahead annual, simple average LMP (locational marginal price). The option of a net metering customer to request payment for excess generation for the net metering period and the corresponding price or pricing formula applicable to such excess generation shall be clearly delineated in the net metering tariff of the electric distribution company. A copy of such tariff shall be provided to each customer requesting interconnection of a renewable fuel generator.

If electricity generated by the net metering customer and fed back to the electric grid exceeds the electricity supplied to the net metering customer from the grid during any billing period (billing period credit), the net metering customer shall be required to pay only the nonusage sensitive charges for that billing period. Such billing period credits shall be accumulated, carried forward and applied at the first opportunity to any billing periods having positive net consumptions. However, any accumulated billing period credits remaining unused at the end of a net metering period shall be carried forward into the next net metering period only to the extent that such accumulated billing period credits carried forward do not exceed the net metering customer's ~~positive-net~~ billed consumption for the current net metering period.

adjusted to exclude accumulated billing period credits carried forward and applied from the previous net metering period.